Addendum to Rationale/Response to Comments
Tennessee General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems
February 27, 2003

I. Background

The EPA issued NPDES regulations related to small municipal separate storm sewer systems (MS4s) on December 8, 1999. That final rule established a due date for small MS4s to apply for NPDES permit by March 10, 2003.

The Tennessee Division of Water Pollution Control decided to issue a general permit to cover the 85 cities and counties identified for regulation under the phase II program.

II. Administrative Record

We placed a draft general permit on public notice on November 25, 2002, with public hearings scheduled for December 17, 18 and 19. The due date for receiving comments -- initially December 31, 2002 – was January 8, 2003.

We received a few comments at the hearings, but the hearings involved primarily discussions of various issues related to the permit. At least 19 letters and e-mails of comment were received by January 8, 2003.

III. Comments and responses

Comments related primarily to the application/NOI

Comment 1: Infrastructure data questions

At least two commenters recommend deleting the infrastructure questions, for open ditches, storm sewers, culverts, catch basins. This is a difficult question especially for counties. Unless an MS4 has accurate mapping/GIS, these numbers will be estimates based on little information, at best, and would have no value. One commenter suggests this section of the application only ask for square miles of the MS4.

Response:

We are going to retain these questions. Along with the questions, we are including a statement that rough estimates are acceptable. We also will ask counties to indicate whether the figures are for urbanized area only or the entire county.

Though this information will be only rough estimates, it is better information than we presently have, and will be of some usefulness in our review of NOIs and programs.

We also note that this permit does not require an MS4 to collect a detailed inventory of these features of its system --with exception of municipally operated detention and retention basins -- either on the NOI or during the term of the permit. Under the illicit discharge detection and elimination program, the permit does require that outfalls be identified.

Comment 2: Clarify "partnering."

Clarify the meaning of "partnering" for the purpose of the NOI.

Response:

A partner or partnering generally refers to when an MS4 is relying on another organization or institution to carry out one or more BMPs, or component tasks of a BMP. The other organization will have responsible charge for executing the BMP or tasks. Also, generally, this organization is identified as a partner because its own mission aligns with the tasks of the BMP. So there is a mutual interest between the operator of the MS4 and the partner to accomplish the BMP.

For example, an MS4 could partner with a school (e.g. a college or university) for the school to perform inspections of construction sites as a part of training students. In this case, for the school to be a partner, it would take responsibility for performance of inspections and thus would need a certain amount of students in the related class. Another example of partnering is a school or citizens group that takes responsibility for stream bioassesments.

Partnering does not generally refer to contracted services with professionals. Partnering does not refer to occasional volunteer work, which would be supervised by municipal staff.

Comment 3: Remove the second Yes/No question under public participation.

Remove the second Yes/No question in the public participation and involvement question.

Response:

This question does not correspond to the permit and we are removing it.

Comment 4: Remove $/year & man-hours/year - construction site runoff control program.

The questions about the current dollars per year and man-hours per year should be deleted from the construction site runoff control program questions. The commenter notes that these questions are not asked of other existing programs.

Response:

We do not need these data and will delete the questions.

Comment 5: How can there be multiple signatories to NOI?

Related to the application form, a commenter asked: "if multiple entities intend to submit a joint NOI, how is this handled, given the present application form?" We also received comment on item 2.2.2, which states that applicants must use the NOI form provided by

the state in Appendix A, to delete the requirement that only the NOI form and no other could be used.

The requirement of the application process for co-permittees at item 3.3.2 is too restrictive, requiring the same set of BMPs, measurable goals and milestones. It would be nearly impossible for several entities to agree on all these points, even though the several entities are implementing basically the same BMPs and programs. The item 3.3.2 needs to be modified to allow different goals and milestones.

Response:

We have revised the form to allow multiple signatures and have revised the wording in item 2.2.2 to require the use of the state's form but allow for minor changes by the applicant for the purpose of clarity. And, the permit language of 3.3.2 has been revised to provide more flexibility to co-applicants in describing their programs.

Comment 6: Require positions rather than persons' names as contact persons.

Where the application NOI asks for the name of the primary contact person for each of the six minimum measures, it should ask for the contact position title. Persons will change, while the position, with its job description, will remain.

Response:

The form has been edited to indicate the applicant can submit either a position title or a person's name.

Comment 7: Revise education requirement for illicit discharge connection program.

Under "Questions related to education," in section V. 3) of the NOI, the first question lists public employees, businesses, property owners, the general community, and elected officials, as different groups that must be educated regarding ways to detect, prevent, and eliminate illicit discharges. The commenter states that this implies that special efforts must be given to each of these groups, in addition to the public as a whole. MS4s should be given flexibility to determine what groups of the public should be targeted for awareness.

Response:

We agree. We have no particular rationale for listing each of these different groups.

Comment 8: Change the inspection frequency for priority construction sites

There is a discrepancy between the NOI, section V. 4) and the permit itself. The permit specifies that priority construction sites be inspected at least once per month, while the NOI specifies at least once per two weeks. See in V. 4), under questions related to enforcement and inspection procedures. These should agree, at once per month.

Note two other commenters request changes to this frequency.

Response:

There should be no discrepancy. We are correcting this.

Comments related to six minimum measures

Minimum Measure 1 - Public education and outreach

Comment 9: Remove requirement for education of restaurant industry.

Remove the requirement 4.2.1.1.1. in the public education and outreach minimum control measure. This is the requirement that the MS4 prepare a clear set of requirements with respect to storm water management at restaurants and similar food service establishments and educate the industry on thise requirements. The commenter argues that local governments have been following an orderly thought process in order to target whom and where to educate, and they may not find restaurants to be a high priority. It is not valid for TDEC to assume that all MS4s should make education of restaurant operators a priority. Each community must plan its public education efforts for its own needed and problem issues.

The general permit and application NOI should allow MS4s to develop management plans targeting land uses that are known to cause or have the potential to cause water quality problems in their jurisdictions. The commenter suggests the general permit and application provide that each MS4 target known storm water hot spots (e.g., restaurants, automotive care facilities, etc.)in the Illicit Discharge and Public Education minimum control measures.

Response:

The intent of this requirement was that MS4s investigate regulations related to restaurants and inform restaurants of these regulations as they relate to storm water runoff. Our proposal was based on experiences of one of the Phase I MS4s permitted in Tennessee. We think this requirement will be important for many MS4s.

We understand the comment and that this situation will not be the same in all cities. Therefore, we are removing the particular requirement and replacing it with a more general requirement that the MS4 develop educational materials for types of activities and operations known to be hot spots. Similarly, we are using more general language in the section of the permit dealing with the minimum measure, illicit discharge detection and elimination.

Minimum Measure 3 - Illicit discharge detection and elimination

Comment 10: What is the minimum pipe size to be identified under this program?

In item 4.2.3.1.2, what is the minimum size pipe that must be included in the MS4s storm sewer map?

Response:

The wording of the permit will be kept the same is in the draft, referring to "all outfalls," meaning there is no minimum pipe size. Note that this refers to outfalls from the MS4 into use-classified waters, or into another MS4. Thus, this is not intended to include the various privately owned and operated pipes and wet weather conveyances that discharge into the MS4 or into use-designated waters.

Minimum Measure 4 - Construction site runoff control

Comment 11: Remove early date to implement construction runoff control program.

Item 4.1.2 (cf. item 4.2.4.1) requires that the construction site runoff control program be fully implemented 24 months from July 1, 2003. The commenter, representing several MS4s who are developing a common storm water management program, opposed this requirement for several reasons:

- Neither EPA regulation nor guidance requires this early implementation:
- The organizational requirements for this group of MS4s precludes implementation on this schedule;
- Early implementation would create an unnecessary cost burden; and
- Early implementation puts Tennessee MS4s (especially those bordering another state) at an economic disadvantage with neighboring states whose MS4s are not on the tighter schedule.

Two or three other persons commented on implementation schedules. See comment on implementation schedules under administrative and legal issues below.

Response:

It is true that EPA regulation does not require the early implementation, but as an element of protecting water quality, we view construction site runoff control as a priority. We would also like programs implemented so that we can evaluate them prior to the end of this permit term. This commenter notes that several MS4s are developing a common storm water management program, and so we understand that setting up a multi-party administration will add time to implementation of storm water management. We will extend the implementation date to December 31, 2005. This will apply for all permittees who are required to file NOI during calendar year 2003. The implementation date will be 24 months after notice of coverage for any permittees required to file an NOI after December 31, 2003.

Comment 12: Comments related to dual regulation of construction sites

We received several comments related to the dual regulation of construction sites. One commenter generally opposed permitting of the same project by both the local government MS4 and the state. The commenter stated that for construction activities that discharge only into the MS4, the local government should regulate those discharges; discharges directly to waters of the state, not via an MS4, should be regulated by the state. In the case of linear projects that traverse one or more regulated areas or regulated and non-regulated areas, dual permitting is acceptable.

One commenter supported the division's idea to set up a general permit whereby construction sites of less that five acres would be automatically permitted under the NPDES program in cities and counties that have qualifying local construction site runoff control programs.

One commenter, from a local government, expressed disagreement with dual permitting, especially with the fact that TDEC will continue to impose a fee for the NPDES permit while requiring that the local government regulate (including inspections) the same construction sites. This sounded wrong to the commenter. In addition, the commenter stated that this MS4 could not charge another fee on top of TDEC's fee.

Another commenter suggested the state establish a procedure to allow local governments to review and comment on all plans/developments that are sent to the state for permitting. This will allow new MS4s to become familiar with process before they are responsible.

Response:

This permit cannot function to eliminate dual permitting [I.e., overlapping regulation of the same construction site]. We will need to prepare other permit(s) in order to simplify dual permitting [overlapping regulation]. This is an issue that we will investigate in the coming months. See the rationale sheet of November 25, 2002, for more discussion of this matter. [Notes added 3/6/03 for clarity.]

Comment 13: Clarify requirement for staff training.

Related to the construction site runoff control minimum measure, item 4.2.4.1.8 regarding training of staff, clarify who needs to be trained in the Tennessee Fundamentals of Erosion Prevention and Sediment Control; and the Erosion Prevention and Sediment Control Design Course. Can a single staff person attend the class and fulfill the permit requirement, or must all staff in the engineering department attend? Do the same staff persons have to attend both the training classes? In what time frame are the staff to attend the two training classes?

Response:

The requirement is written to allow any number or combination of staff. One staff member attending both classes would satisfy the requirement. It should be noted that normally the Fundamentals course is a pre-requisite for the Design course.

The draft permit did not explicitly specify a time frame for attendance. However, the draft permit requires that an MS4's construction site runoff control program be fully implemented by December 31, 2005. We believe this includes the staff training. We will add a note to the implementation schedules to this effect.

Comment 14: Comments on inspections of construction sites

One commenter recommends that the requirement, item 4.2.4.1.9 (c) include consideration of a need for inspection, maintenance and repair because of storm events. Suggested language: (c) "Inspections by the MS4 of priority construction sites at least once per month and after significant storm events."

Another commenter requested that inspections only be required upon receipt of citizen complaint.

Response:

We think that this level of inspections is within the capacity of all the MS4s and are going to keep the requirement as is.

We note that, according to the schedule in the permit, an MS4 is required to build its program for full implementation no later than December 31, 2005. So, this is an activity that does not have to be fully engaged until then.

We can re-evaluate this requirement at the end of the permit term.

Comment 15: Include definition of priority construction sites in Definitions section.

One commenter supported the designation of priority construction sites and recommended that its definition be included under part 7 (Definitions) of the permit

Response: We will make this addition.

Comment 16: Various comments on imposing technical requirements of local program

One commenter, not a municipality, agreed that this general permit should include a number of technical requirements from the state's NPDES construction general permit; this provides statewide consistency. These requirements are found in item 4.2.4.1.3 of the draft permit, on page 13 of 27.

The commenter also argues that the consistency should extend to the procedures the local governments follow to issue permits. Specifically, the commenter believes that the local governments separate the issuance of erosion and sediment control permits/authorization from other permits or approvals by the local government, such as building permits and blasting or grading permits. One reason for this request is that federal entities are not generally subject to local requirements such as building codes and lumping these requirements together would make the local permitting problematic. The commenter recommends the phase II general permit require that the construction site runoff control program requirement be kept separate from other local programs.

Another commenter, a municipality, states that the specifics of item 4.2.4.1.3 given in the draft permit should not be included in the permit. Rather they should be a part of the BMPs submitted by each MS4. Another municipality commented that it seemed expedient to adopt the standards outlined in the state's Erosion and Sediment Control Handbook, and had done so by ordinance. [Note: These erosion and sediment control standards do not include the several technical requirements of the NPDES general permit that are in section 4.2.4.1.3.]

Another commenter states: "In-depth clarification should be provided on the requirements listed in 4.2.4.1.3."

Response:

We are retaining the requirement for a erosion and sediment control plan and the design criteria, but is removing items (b), (c), and (d) about pre-construction ground cover, phasing large projects, and cover after final grading. These are important principles, and we recommend they be adopted, but realizing local governments, for one reason or another may need to adjust the time frames. Also, we do not feel that we are in a position to stipulate the administrative mechanisms the MS4 should use to regulate construction activity, and so we are not able to be specific about the MS4's keeping erosion and sediment control programs separate from other functions.

Comment 17: Pre-construction meetings will be a difficult requirement for smaller MS4s.

One commenter questioned the requirement for the MS4 to hold pre-construction meetings with operators of priority construction sites. This may prove rather difficult for some, especially smaller, communities.

Response:

We are going to keep this requirement in the permit. Smaller cities will have smaller number of construction sites and impaired waters generally. MS4s can vary the scope of these pre-construction meetings according to the situation at hand.

Minimum Measure 5 - Post-Construction Storm Water Management in New Development and Redevelopment

Comment 18: Provide additional details for the buffer zone requirement.

At least three commenters supported the buffer zone requirement as positive and good for protection and stewardship of water resources.

At least two commenters addressed the matter of whether or not the permit requires establishing buffers or only maintaining them. One noted that establishing is significantly different than maintaining buffers. Another suggested adding language to clarify what is meant by a "riparian buffer," either by adding another sentence to define buffer or by inserting the word "establish" into the sentence. For instance, riparian buffer could be defined as follows: a strip of undisturbed vegetation, enhanced or restored vegetation, or the re-establishment of vegetation surrounding an area of disturbance or bordering streams, ponds, wetlands or lakes. Or, by inserting establish in this way, "You must develop and implement a set of requirements to ***establish***, protect and maintain riparian buffer…." Another commenter noted that the buffer language in the general permit differed among the permit, the NOI and the rationale sheet (forested, riparian) and that consistent terms should be used.

One commenter suggested the state specify minimum standards for these buffer zones; e.g., a minimum width.

Response:

We will insert the word “establish” into the requirement for buffers and is now using the term “water quality buffer,” which we have defined as follows:

Water quality buffer means undisturbed vegetation, including trees, shrubs and herbaceous vegetation; enhanced or restored vegetation; or the re-establishment of vegetation bordering streams, ponds, wetlands, reservoirs or lakes, which exists or is established to protect those waterbodies.

We present the requirement for a water quality buffer in a general form, allowing and requiring municipalities to craft the minimum standards. See next question for an example of one city’s more detailed definition of water quality buffer

Comment 19: Clarify intended meaning of riparian buffer.

Several comments were received on the requirement for buffer zones. At least two commenters suggest that the permit clarify the intended meaning of "riparian buffer." One notes: It is unclear what exactly waterway buffers are. Please provide clarification. The permit language itself doesn't use the term waterway buffers. Are they riparian zones or will it be explained in the Erosion and Sediment Control course?

Response:

As noted above, the term, water quality buffer, has been defined in the permit. Technical details of the buffer are not given in the permit. As an example definition of buffer, we have quoted below a definition from the Metro Nashville/Davidson County storm water management manual (pp. 50,51):

> New development and significant redevelopment in or adjacent to the floodplain and floodway shall include buffers in the proposed plans. The buffer along waterways will be an area where the surface is left in a natural state and is not disturbed by construction activity.
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> The buffer shall be defined as follows:
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> 1. In areas where a floodplain and floodway have been determined and accepted by the Department of Public Works, the buffer shall be the width of the floodway plus at least 50 feet perpendicular from the floodway on each side of the waterway.
> 2. In areas where a floodplain and floodway have not been determined and accepted by the department, it contains a "blue line" or intermittent "blue line" stream denoted on the United States Geological Survey Quadrangle maps or serves a significant tributary area, of 40 or more acres, the buffer shall be at least 25 feet perpendicular from each side of the stream bank, creek or unnamed waterway under "bank full" conditions.
> 3. In areas where a floodplain and floodway have not been determined and accepted by the department or the Federal Emergency Management Agency and it does not contain a "blue line" or intermittent "blue line" stream denoted on the United States Geological Survey Quadrangle maps or serves a significant tributary area, of 40 or more acres, a buffer is not required.
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> The following additional performance criteria shall apply:
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> 1. In order to maintain the functional value of the buffer area, indigenous vegetation may be removed only to provide for reasonable sight lines, access paths, general woodlot management, and storm water quality BMPs, as follows:
> a. Tree pruning or removal be minimized, but permitted as necessary to provide for sight lines and vistas, provided that where removed they shall be replaced with other vegetation that is equally effective in retarding runoff, preventing erosion, and filtering nonpoint source pollution from runoff.
> b. Any path, for public or private use, shall be constructed and surfaced so as to effectively control erosion and minimize increases in excess storm water runoff volume and velocity.
> c. Dead, diseased, or dying trees or shrubbery may be removed at the discretion of the landowner.
> 2. When the application of the buffer area would result in the extreme loss of build able area, as defined by a 50% or greater loss on a lot or parcel, modifications to the width of the buffer area may be allowed through the current appeals process, through the [Metro] Stormwater Management Committee.

Comment 20: Clarify adequate long-term operation & maintenance of BMPs.

Clarify what is the scope of the requirement, item 4.2.5.1.5, that the MS4 ensure adequate long-term operation and maintenance of BMPs. Does this apply only to BMPs incorporated into new development, or also to BMPs already existing?

Response:

We conclude this refers to new development and redevelopment and not generally to existing development.

Comments on other technical issues

Comment 21: Make change to list of allowable non-storm water discharges

The list given in item 1.4.2.2 includes, "discharges from potable water sources." This should allow only "dechlorinated discharges from potable water sources," because potable water can have sufficient chlorine to kill fish.

Response:

This list is codified in federal regulations, and we do not intend to modify it. Of course, the permit gives the permittees responsibility to identify any of the listed waters as substantial contributors of pollutants to waters of the state. We also could make this determination on a statewide basis, and/or for specific MS4s, if and when we obtain more detailed information showing potable water discharges to be substantial contributors of pollutants.

Comment 22: Monitoring requirements should not be a mandate

Section 5 of the permit deals with monitoring. However, monitoring is not a mandate of the six minumum measures given in the federal rule for small MS4s. All monitoring should be compiled by TDEC and not the MS4. [Also see comments related to impaired waters and TMDLs, on item 3.1.3.6, below.]

Response:

We will make it clear that analytical, chemical or biological monitoring is not a requirement of the permit. The permit will include provisions that apply to monitoring should an MS4 perform monitoring as a component of its storm water management program.

Comment 23: Are industrial activities in non-urbanized (UA) portion of a county regulated?

If a county with only a portion that is urbanized area elects to regulate the entire county, would water treatment/sewer treatment plants be required to obtain special permits?

Response:

The sixth minimum measure requires the MS4 to apply pollution prevention and good housekeeping to municipal operations. We think that this only applies to municipal operations in the urbanized area. If the MS4 elects to implement its storm water management program county-wide, it may elect to implement only parts of the program county-wide; in other words, it might decide not to apply the good housekeeping measures outside the UA.

As to the need to obtain special permits – and by this we understand, TDEC-issued NPDES permits for industrial activities (TMSP) – counties and cities are required to apply for coverage by March 10, 2003, regardless of where the activity is located and regardless of whether the phase II urban runoff permit regulates that area. In fact, this

requirement to obtain permit coverage for industrial activities applies to all counties and cities, not only those that have to obtain the MS4 permit. For more information on the TMSP, see our web page. Also, note the option of a no-exposure certification.

Comment 24: The permit does not address impacts from upstream dischargers.

Monitoring of upstream watershed activity impacts and/or unregulated MS4 impacts on regulated MS4s does not appear to be addressed. Should the permit address the possibility of upstream impacts on the evaluation of the effectiveness of the implementation of the Phase II program?

Response:

This is an important point. However, other than requiring MS4s to monitor upstream dischargers and upstream water quality – which is a burden we should not impose through this permit – there is little provision the permit can include to address this point.

This issue is normally handled if and when we begin to take enforcement action against a discharger for causing water pollution. In our investigations, we take into account upstream conditions.

Comments related especially to impaired waters and TMDLs

Comment 25: Various concerns and questions about permit provisions related to TMDLs

Several comments and questions were received in writing and several questions at the public hearings on the matter of TMDLs and this permit. Comments addressed the eligibility provisions of the permit, monitoring and assessment requirements, the necessity of monitoring, and to some extent the validity of the WLAs. These are listed separately in subsequent comments below. The following is a response in general to TMDLs and this permit.

Response:

We make the following points related to TMDLs and the provisions of this permit.

- The permit includes an iterative process so that MS4 evaluate BMPs, as to whether they meet the provisions of the TMDL;
- In this initial MS4 general permit, we expect that establishing the storm water quality management program with the six minimum measures will be the primary task in fulfilling TMDL implementation recommendations; we recognize that an MS4 must have time to establish legal, administrative, technical and financial resources and structure to carry out a storm water management program;
- This small MS4 general permit does not require analytical water quality monitoring of streams or storm water discharges.
- We expect that future TMDLs will include water quality monitoring as a component of implementation, though generally without detailed requirements, as to the scope of the sampling. Thus, until an impaired waterbody is restored to water quality standards, MS4s that are a part of wasteload allocations in TMDLs will have to become involved in monitoring to show reduced loading and/or water quality improvement.
- We think that it will be to the advantage of those MS4s affected by TMDLs to perform monitoring; to show compliance with the TMDL, and to support "delisting" of a stream. See comment 28 below.

With respect to eligibility provisions, there are situations where an MS4 should be ineligible for this general permit. That is, where an approved TMDL applies a specific wasteload allocation to the MS4 and recommends the numerical wasteload allocation be included in an NPDES permit. This is expected to be a rare situation, especially within the term of this MS4 permit. TMDLs are not presently formulated to such an accurate degree and are rather expressed as percent reductions or perhaps in loading terms that are intended to be used for comparative, not absolute, purposes.

The terms analytical monitoring and monitoring are being defined in this permit, as follows, as a means to clarify permit requirements:

> *Analytical monitoring* refers to monitoring of waterbodies (streams, ponds, lakes, etc.) or of storm water, according to 40 CFR 136 "Guidelines Establishing Test Procedures for the Analysis of Pollutants," or to state- or federally established protocols for biomonitoring or stream bioassessments.
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> *Monitoring* refers to tracking or measuring activities, progress, results, etc.; and can refer to non-analytical monitoring for pollutants by means other than 40 CFR 136 (and other than state- or federally established protocols in the case of biological monitoring and assessments), such as visually or by qualitative tools that provide comparative values or rough estimates.

Comment 26: Revise eligibility provision in case of TMDLs (item 1.5.7).

One commenter asked, what constitutes "established or approved" for a TMDL? Does this action by the division require approval by EPA? At what point is the TMDL in effect? Will the NOI need to include details for incorporation of the TMDL requirements for review of the NOI?

Two commenters suggested changes to item 1.5.7. One stated to delete the sentence "You must incorporate any limitations, conditions and requirements applicable to your discharges, including monitoring frequency and reporting required…in order to be eligible for permit coverage." Another indicated we should modify the requirement to be effective "upon completion of determining validity of TMDL in the second permit cycle." (Two other commenters also suggested deferring permit requirements related to TMDLs; see below.)

Another commenter addresses how a TMDL could render an MS4 ineligible for coverage under the general permit – either before coverage or during the term of coverage, and encourages the division to add language in the permit to reflect the following -- if a TMDL is nonspecific and the general permit conditions are consistent with the TMDL, then the permittee can remain covered; however, if the TMDL allocates a specific load, then the discharges must be covered by an individual permit which applies the allocation to the discharge.

Response:

The approved TMDL is one in which EPA Region IV has issued the state a letter of approval. The steps to an approved TMDL include drafting; placing on public notice, receipt of comments; modifying the TMDL as the state deems necessary; followed by review and written approval by EPA. After the EPA approval, we post the TMDL to its web site, usually within a day or two.

NOIs will not need to include particular discussion of BMPs focused on implementation of the TMDL. Because this is the first term of small MS4 permitting , we view implementation of the six minimum measures as all effective toward implementation of a TMDL.

In the NOI, applicants are required to list impaired waters and TMDLs. In reviewing NOIs, we will take into account TMDLs and impaired waters. We expect to evaluate whether the BMPs proposed address the TMDL provisions. For instance, if a sediment TMDL exists with an implementation plan for the MS4, but the MS4 proposes a weak or inadequate construction site control program, we can require changes to the BMPs.

We are adding language to the permit to make clear that that annual reports address efforts to protect impaired waters and implementation of TMDLs.

Item 1.5.7 is being revised to render ineligible for permit coverage those MS4s for which an approved TMDL calculates a specific wasteload allocation in units of mass for the MS4 and recommends that allocation be applied through an individual NPDES permit. Where a wasteload allocation is based on percent reductions or expressed in loading terms that are intended to be used for comparative, not absolute, purposes, the MS4 will be eligible for permit coverage.

Case 1. An MS4 discharges storm water through several outfalls to First Creek. In the third year of the MS4 general permit a TMDL is approved and promulgated for sediment in First Creek. Included in the TMDL is a wasteload allocation for the MS4.

The wasteload allocation is based on comparing the various land uses in the urban area to land uses in the watershed of a reference stream. Land use, flow path and several other variables result in estimates of loading from the urban area and the rural area of the reference stream. The urban area shows a loading of 400 tons/year/acre, while the rural area shows a loading of 150 tons/acre/year. The wasteload allocation in the approved TMDL is presented not as an absolute mass loading of solids from the MS4, but as a percent reduction of 63% (from 400 to 150). In this case, the TMDL does not assign a specific wasteload allocation to the MS4.

Thus, the MS4 may remain covered under the general permit. It must monitor its storm water BMPs for reductions in sediment loading to First Creek and evaluate whether those BMPs will achieve a 63% reduction. (The MS4 may choose to perform water quality monitoring in the fourth and fifth year of the permit, but such monitoring is not required by this general permit.)

Case 2. A TMDL is based on a study of First Creek and determines that the creek can sustain 5000 tons/year of sediment loading. The MS4 receives an allocation of 2500 tons per year (or 48 tons per storm event, assuming 52 events per year; or 7 tons per calendar day), and the TMDL has been developed with enough accuracy to recommend the WLA be implemented in an individual NPDES permit.

As a note, it is likely that any TMDL for suspended solids would be expressed in terms of an annual loading. If this is the case, we would convert the annual loading to a daily load by dividing the annual value by the number of days of wet weather flow.

The language in the final permit reads as follows:

1.5.7. Discharges of any pollutant into any water for which a Total Maximum Daily Load (TMDL) has been either established or approved by EPA, where the TMDL applies

to storm water discharges from the MS4 a specific wasteload allocation and recommends it be incorporated into an individual NPDES permit.

1.5.7.1 This eligibility condition applies at the time you submit a Notice of Intent for coverage. For discharges not eligible for coverage under this permit, you must apply for and receive an individual or other applicable general NPDES permit prior to discharging.
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1.5.7.2 If a TMDL is approved by EPA after you have received permit coverage, which applies a specific wasteload to the MS4, recommending it be incorporated into an individual permit, then you must apply for an individual NPDES permit within 90 days from promulgation of the TMDL, or earlier if the division notifies you of an earlier date. Until the individual permit is effective, you may remain covered by the general permit provided you comply with the applicable requirements of Part 3.

Comment 27: Revise eligibility provisions with respect to Tennessee's antidegradation rules.

In item 1.5.8, delete the balance of the paragraph from "The permittee shall further be required…to comply with a standard permitting no discharge of pollutants."

Response:

We agree. This item of the permit is intended to list those discharges ineligible for coverage under the general permit. The second half of the paragraph is setting forth requirements out of context, that are addressed in other parts of the permit.

Comment 28: Clarify when water quality monitoring is required; record keeping.

The requirement of item 3.1.3.6 – "describe a method to evaluate whether the storm water controls are adequate to meet the WLA" -- suggests that water quality monitoring will be required to assess BMP effectiveness. This suggestion is reinforced by the language of item 5.1 that gives protocol for monitoring. Two commenters made this observation. The permit should clarify when water quality monitoring by an MS4 will be required. One commenter suggested that water quality monitoring and assessment of an MS4's storm water controls is a function already performed to a considerable degree by TDEC under its watershed management plan and biennial reports on the status of water quality.

Another commenter requests that the permit make clear that monitoring is not required until the second permit cycle and not unless a quantifiable baseline has been established for the particular waterbody.

One commenter requested a change to the requirement that the three year recordkeeping requirement could be extended by request of the division at any time, to indicate this extension should be based on good cause.

Response:

As introduced in Comment 25 above, this permit does not require analytical (40 CFR 136) water quality monitoring. We have made changes to the wording of the TMDL provisions of the permit, that remove the implication that we expect analytical monitoring to be a feature of a storm water management plan in this first term of the permit.

Similar changes are also made to section 5 of the permit to remove the suggestion that analytical water quality monitoring is required. And, a distinction is made between

analytical monitoring and other types of monitoring, that an MS4 might employ to evaluate changes in water quality and the effectiveness of its BMPs.

It is true we are regularly evaluating water quality and formally report on the status of water quality [the 305(b) report] every two years, and indeed, it is these reports where the proof of improved water quality is manifest. Our information is limited, however, and thus we encourage water quality monitoring by other parties such as local governments. We expect TMDLs in the future to recommend water quality monitoring.

Without reevaluation of streams, we of course cannot document improvements to water quality. We suggest that cities and counties, as resources allow and expertise directs, monitor water quality of streams. We believe that many MS4s will find that some level of water quality monitoring is within their capacity and to their advantage. Thereby, we will have more information and opportunity to show improvement to a water body.

Please note that there are opportunities for cooperation in stream monitoring, particularly among the state, the USGS, and University and Board of Regents school systems, that will enable local governments to perform monitoring of local streams at less cost than performing the monitoring alone.

Comment 29: Validity of sediment TMDLs is a concern.

A set of commenters in West Tennessee are concerned, with reference to item 3.1.1.2 in the permit, that TMDL's are formulated without regard to soil-type or regime, and the lack of a quantified TMDL for suspended solids is another concern. The commenters submitted a report on the relationship between water turbidity and suspended solids concentration.

Response: This concern is noted.

Comment 30: References to WLA should refer to the implementation plan instead.

One commenter, who is affected by a sediment TMDL, views the WLA as unmanageable, but the provisions of the implementation plan as manageable. Another commenter suggested that section 3.1.3 be revised by removing emphasis from the wasteload allocation and placing emphasis on the TMDL implementation plan. The suggested changes are shown below:

3.1.3 Consistency with the Total Maximum Daily Load ~~(TMDL). Allocations.~~(TMDL) Implementation Plan. If a TMDL has been approved for any waterbody into which you discharge, you must:

3.1.3.1 Determine whether the approved TMDL is for a pollutant likely to be found in storm water discharges from your MS4.

3.1.3.2 Determine whether the TMDL includes ~~a pollutant wasteload allocation (WLA) or other performance~~as part of its Implementation Plan, requirements~~specifically~~ for storm water discharge from your MS4.

3.1.3.3 Determine whether the TMDL address a flow regime likely to occur during periods of storm water discharge.

3.1.3.4 After the determinations above have been made and if it is found that your MS4 must implement specific~~WLA~~ provisions of the

TMDL's Implementation Plan, assess whether ~~the WLAs~~those provisions are being met through implementation of existing storm water control measures or if additional control measures are necessary.

3.1.3.5 Document all control measures currently being implemented or planned to be implemented. Also include a schedule of implementation for all planned controls. Document~~the calculations or other~~ evidence that shows that the ~~WLA~~TMDL Implementation Plan will be met.

3.1.3.6 Describe a method to evaluate whether the storm water controls are adequate to meet the ~~WLA.~~TMDL Implementation Plan.

3.1.3.7 If the evaluation shows that additional or modified controls are necessary, describe the type and schedule for the control additions/revisions.

Response:

We have revised the language of this section of the permit to remove emphasis from a WLA and actually to place the emphasis on the TMDL as a whole. But, we note, the TMDL is a package, including a WLA.

Comment 31: Comments related to assessing whether TMDLs and WLAs are being met; commenters recommend state defer requirement for extensive, detailed assessments.

One commenter wrote that the sampling, testing, and analyses of TMDL's and WLA's that is required throughout the draft permit represent a program that includes highly technical and specialized practices; thus, the monitoring of this program, especially during its developmental and/or beginning stage, should not be the responsibility of the individual municipality. The commentor believes that this requirement has been included without the benefit of discussion and analyses of impact, and is better deferred until a later date.

Another commenter had similar concerns related to technical aspects of TMDLs, and the standards by which an MS4 is to be judged in efforts to bring about the goals of a TMDL; such as:

* Limited evaluations, water quality conditions or current compliance status of receiving streams.
* No clearly identified scientific methodology for quantifying water quality impacts due to wet weather discharges to receiving streams.
* Lack of quantifiable data associated with the development of TMDL.
* Justifiable baseline does not exist to determine if controls are increasing water quality in receiving streams.
* Ability to meet water quality standards in urban areas that were developed with the absence of BMPs.
* Limited knowledge/expertise of MS4 owner/operators in dealing with water quality and storm water management. Using water quality based standards as a basis for compliance is not recommended until TDEC has collected specific quantitative data, conducted TMDL or other water quality studies appropriate for establishing loading limits for discharges and the practicality for satisfying water quality requirements.

* The combination of in-stream pollutant concentrations, wet-weather storm water discharges and use impairment are theoretical and not quantified, and thus introduce uncertainty into development of TMDLs.
* TMDL assessment is best achieved on a watershed wide basis; thus, commenter recommends that TDEC enhance watershed monitoring to monitor TMDL compliance.

One commenter noted that nowhere are the requirements for testing (monitoring) for the purpose of fulfilling TMDLs set out in a clear and comprehensive manner. The commenter asks: Who will perform tests? How often will the tests be performed? When is it the responsibility of the permittee to test and when will upstream or downstream tests by other permittees suffice? How will division of common streams be determined?

Response:

These concerns have been noted and addressed to a great extent, as discussed in previous questions.

As to the list of issues that weaken the validity of TMDLs, we call on cities and counties to consider themselves partners, with the local community, and with the state, in addressing these issues. Effective storm water management programs will reduce contamination of urban runoff and help restore good water quality and thus lead to fewer impaired waters across the state.

Comment 32: Recommended changes to section 3.1 (re: water quality impaired waters)

One commenter requested the following changes:

Section 3.1.1.2: Compliance with parts 3.1.2 and 3.1.3 should not be required until the second permit cycle. Where there are changes, modifications, or revisions to the 303(d) listed impaired streams in the first permit cycle, they need not be addressed until the second permit cycle.

Section 3.1.2: Instead of requiring that the MS4 "ensure" its discharges will not cause or contribute to instream exceedances of the water quality standards, the permit should allow the permittee to develop its program in the first five year permit.

Section 3.1.3.4: Remove the language of this section. Replace it with a requirement to study the waste load allocation (WLA) and Total Maximum Daily Load (TMDL) during the first NPDES Phase II permit cycle, providing for implementation of WLA program during the second permit term.

Section 3.1.3.5 - Remove entire section.

Section 3.1.3.6 - Remove entire section.

Section 3.1.3.7 - Remove entire section.

Response:

These comments have been addressed to a great extent, as discussed in previous questions. The permit keeps these sections, with revised wording.

As far as the schedule for implementing changes to a storm water management plan and its BMPs, we think the permit allows for a phased approach.

Comment 33: Provide list of TMDLs pending approval and scheduled in the next ten years.

Provide list of current pending for approval TMDLs and a list of scheduled TMDLs associated with the first two permit terms or location or resource these can be found.

Response:

TDEC's web page for TMDLs (http://www.state.tn.us/environment/wpc/tmdl.htm) contains a list of approved TMDLs, a list of draft TMDLs, and a narrative on how we establish priorities for TMDLs. As of February 17, 2003, there were 14 approved TMDLs and four draft TMDLs posted on this site.

Comment 34: Cover page of permit specifically addresses discharges to impaired waters.

The paragraph on the cover page specifically addresses discharges to impaired water bodies (303d listed stream segments). It seems that most of our MS4 system discharges to a 303d listed stream. What impacts will this have?

Response:

We will delete reference to impaired waters in the cover page and address these issues in the body of the permit.

As noted in Comment 26 above, eligibility provisions of the permit are such that eligibility is denied under this general permit in those cases where the TMDL allocates a specific load to the MS4. A specific load refers to an actual load, not a comparative or relative load.

Comments on administrative and legal issues

Comment 35: Prescribe detail in the situation where a watershed spans urbanized and non-urbanized area.

A commenter from a county suggested the permit express more detail on what is required if a section of the urbanized area (UA) within the county affects a watershed that covers a larger portion of the county. Similarly, the commenter requested the state produce guidelines on regulating drainage that collects inside the UA but flows outside of the UA to an outfall. The commenter believed the entire flow path should be regulated.

Response:

For cities and towns, the permit regulates the entire municipality. For a county, the permit regulates at a minimum the urbanized area. Additional portions of the county can be regulated, if so identified on the notice of coverage. This would occur if the county requests non-UAs be regulated, or if the state designates the additional areas of the county as regulated.

We think counties should apply their MS4 programs to the entire watershed of any watershed that spans both urbanized area and non-urbanized area. One reason is to simplify the administrative aspects of the program, first for the county staff and second

for the regulated community -- the urbanized area boundaries do not necessarily correspond to easily manageable areas. A second reason is to address issues of water quality over a wider area, if not the whole county. Other factors to consider are the nature of streams in the county (e.g., presence of high quality and/or impaired waters); developing areas or urban growth corridors, which will be recognized as urbanized in the future; and the areas under regulation by adjacent MS4s.

If non-UAs drain to waters entering UAs, then the non-UA is affecting the regulated area, and it is to the county's benefit to improve the quality of this waterbody. If the UA drains to an outfall outside of the UA, and we were to evaluate discharge quality, we would do so at the outfall. From that standpoint, it would be to the county's advantage to apply the storm water program to the entire area.

Comment 36: TDEC should include procedures in case a local government is having difficulty enforcing its rules.

TDEC should outline a procedure so that in cases where the local government is having difficulty enforcing its rules the MS4 can turn the issues over to the state for enforcement and larger fines.

Response:

This comment is noted. TDEC is prepared for these situations and will do so according to its priorities for enforcement actions.

Comment 37: Due date for annual reports should be 90 days after close of reporting year.

Several commenters suggest the due date for annual reports be three months after close of reporting year. Another commenter suggests that the state stagger the report dates so that it does not have to receive all the reports at the same time each year.

Response:

Presently we plan to set July 1 - June 30 as the reporting year for most or all permittees, and to set September 30 as the due date for annual reports. We recognize and accept that we will receive many reports at the same time.

Comment 38: Term of coverage should be a full five years.

At least two commenters requested that the term of coverage under this permit extend for five full years, to allow MS4s five full years to implement their programs. One commenter recommends the permit term begin July 1, 2003, the same date that we intend to make Notices of Coverage effective. This date also would make the term of the permit to coincide with local government fiscal years. One of the commenters recommended that TDEC place language in the permit that that would allow governments to have the full five years from the date of permit coverage.

Response:

Federal regulation states that the permit can extend five years from its issuance date and no more. This prevents us from providing a full five years of permit coverage. An effective date of coverage at July 1, 2003, will give permittees approximately four years and nine months of coverage under this permit.

Comment 39: Specify implementation schedules.

One commenter requested that the state provide more specifics of an implementation schedule so that local governments could better establish time frames for funding issues. A similar comment was received, worded as follows: "there should be a phasing protocol to allow time and funds to meet what is now an unknown standard."

A second commenter requested changes to the implementation schedule in paragraph 4.1.2., to add six months to each of the dates given in the draft permit.

A third commenter argues that the state should not impose implementation deadlines during the term of the permit. The commenter understands that the EPA, via the storm water rule, is allowing small municipalities five years to create and fully implement a program to comply with the six minimum measures. The commenter notes that there is time needed to raise money for implementation, and time needed to allow for flexibility to tailor programs according to a city's physical and financial resources. This commenter indicates that this local government will not have the funds available to implement a program for well over a year. The commenter states: "[b]y requiring MS4's to generate and fully implement 'Illicit Discharge Detention and Elimination' and 'Construction Site Runoff Control' ordinances within two years, rather than five years, TDEC is requiring MS4's to perform tasks that many are not financially or technically prepared to do."

Response:

We are adding six months to the implementation date of the construction site runoff control program. This is the only change we are making to the implementation schedule.

We note that there is a model storm water ordinance developed by UT, promulgated July, 2002, and a model storm water utility ordinance, July, 2002, available to cities and counties. The web page for access to these is the web page for the MTAS NPDES Phase II Stormwater Management BMP Toolkit, at http://www.mtas.utk.edu/bmptoolkit.htm.

Thus, giving 18 months to adopt this ordinance or a modified ordinance is adequate as are the other implementation dates.

Comment 40: Eliminate joint liabilities for co-permittees.

In item 3.3.4, each co-permitee should be individually liable if their data is not included in the annual report, not jointly liable as the draft permit states. Another commenter added that should two or more municipalities choose to be covered under this general permit, they should be individually liable for all portions of permit compliance.

Response:

We have changed the wording related to joint liability for the annual report, so that parties are individually liable for those parts of the report related to their MS4.

Regarding the second comment, it may be important to note that under this permit, since it is a general permit, each co-permittee is subject to the same requirements as if it were a single permittee. The only difference relates to how we would keep track of numbering, filing, correspondence and tracking. If a number of co-permittees apply with the same program on the same NOI, and submit annual reports together, we could possibly track them as a single permit number and a single filing location.

We have encouraged cooperation among neighboring MS4s and have provided the co-permittee option (which is also provided by EPA in the federal rule); however, at present, we plan to assign different permit numbers to the different permittees. See next question also.

Comment 41: Annual maintenance fee for joint permittees should be only one fee.

At least two MS4s commented that administration of the permit should provide that there is only one assessment of the $2500 maintenance fee on a joint NOI, rather than a $2500 assessment for each signatory. One commenter notes that the MS4s are now taking on many new responsibilities and added expenses, and questioned why the additional $2500 maintenance fee.

Response:

We assess a fee to a permittee, and in practice this is determined by a permit number. Thus, if we assign separate numbers to co-permittees, each permittee will receive an invoice for $2500. If we assign a single permit number to a set of copermittees, then according to present procedures, a single fee will be assessed based on the population of the total of the municipalities, up to $7500 for a total population of 250,000 or more.

At present, we intend to assign separate permit numbers to co-permittees, and this means separate fees of $2500 each.

Comment 42: Do not require state pre-approval of changes to ineffective BMPs.

In section 4.5.2.2 (procedure for changing ineffective or unfeasible BMPs), the commenter notes that this procedure is too restrictive. The MS4 should be able to change ineffective BMPs without possible delays due to state review. The commenter suggests that these sorts of changes could be included in the MS4's annual report.

Response:

We do not want to cause delays in needed changes to ineffective BMPs. We also think that, overall, once per year notice of changes to BMPs is going to be adequate. We request and advise that MS4s contact us concerning major revisions to an MS4 program and note that we generally will be pleased to provide consultations on improving an MS4's set of BMPs.

Comment 43: There is a discrepancy between item 4.5.3.3 and item 1.5.7, related to mid-permit changes to BMPs.

Item 4.5.3.3 suggests that the division can require updates to the program to meet CWA goals and requirements. On the other hand, item 1.5.7 seems to indicate that mid-permit changes will not be required for TMDLs that are approved or developed after the notice of coverage is issued.

Response:

Item 1.5.7 has been revised and now addresses the situation where a discharger becomes ineligible for coverage under the permit. So, this section does not have a bearing on mid-permit changes.

On the matter of mid-permit changes, they are required, in the case of a new TMDL, based upon a comparison between the TMDL and the permittee's storm water

management controls, if the comparison shows that the storm water management plan is not meeting provisions of the TMDL.

Corrections

Various corrections for typographical errors, for unclear meaning, and for inconsistent requirements have been made to the permit. One can find these by viewing a copy of the permit that shows the changes made from the draft to the final permit. Typographical errors that would not affect the meaning of the permit are not necessarily highlighted. See our phase II web page at http://www.state.tn.us/environment/wpc/stormh2o/MS4II.shtml.

Date: 2/27/03

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